

DOCUMENT RESUME

SE 005 691

ED 025 424

By- Welch, Wayne W.
Harvard Project Physics Research and Evaluation Bibliography.
Harvard Univ., Cambridge, Mass. Harvard Project Physics.
Pub Date Nov 68

Note- 7p.

EDRS Price MF-\$0.25 HC-\$0.45

Descriptors- *Bibliographies, *Curriculum Development, *Evaluation, *Physics, Research, Science Course
Improvement Project, *Secondary School Science

Identifiers- Harvard Project Physics

The articles listed were written as part of the research and evaluation program of Project Physics. Many articles are concerned with problems of educational research while others are devoted directly to the evaluation of Project Physics. The articles are listed in four categories according to the availability of reprints: (1) published articles (Reprints are available free of charge from the Project Office, 8 Prescott Street, Cambridge, Massachusetts 02138), (2) articles in press (Reprints will be available from the above address following publication), (3) mimeographs (A limited number of mimeograph copies are available, and (4) theses and/or qualifying papers (Copies of these studies are available from the Education Library, Harvard University). (author/BC)

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.

Harvard Project Physics

Research and Evaluation Bibliography November, 1968

ED025424

Since its inception, Harvard Project Physics, a new high school physics course, has been committed to the belief that research and evaluation are an integral part of course development. We have devoted considerable time and effort to these activities during the past three years. Eventually, all of our findings will appear in a final published report. Meanwhile, this list of research papers is presented for interested persons.

Wayne W. Welch
Evaluation Coordinator

SE005 691

The articles listed in this bibliography were written as part of the research and evaluation program of Project Physics. Many articles are concerned with problems of educational research while others are devoted directly to the evaluation of Project Physics.

The articles are listed in four categories. The distinctions are based on the availability of reprints of the articles.

- I. Published articles (Reprints are available free of charge from the Project Office, 8 Prescott Street, Cambridge, Mass. 02138)
- II. Articles in press (Reprints will be available from the above address following publication.)
- III. Mimeographs (A limited number of mimeograph copies are available.)
- IV. Theses and/or qualifying papers (These are studies carried out by graduate students working with the evaluation staff. Copies of these studies are available from the Education Library, Harvard University.)

Published Articles

- Rutherford, F. James and Welch, Wayne W., "Evaluation Activities of Harvard Project Physics," Science Education News, American Association for the Advancement of Science (June, 1967). AAAS Publication No. 6-67, pp. 5-6.
- Walberg, Herbert J., "Dimensions of Science Interest in Boys and Girls Studying Physics," Science Education, 51, 2 (March, 1967), 111-116.
- Walberg, Herbert J., "Personality Correlates of Factored Teaching Attitudes," Psychology in the Schools, 4, 1 (1967), 67-74.
- Walberg, Herbert J., "Reading and Study Habits of High School Science Students," Journal of Reading, 11, 5 (February, 1967).
- Walberg, Herbert J., "Structural and Affective Aspects of Classroom Climate," Psychology in the Schools, 5, 3 (July, 1968), 247-253.
- Walberg, Herbert J., "Teacher Personality and Classroom Climate," Psychology in the Schools, 5, 2 (1968), 63-67.
- Walberg, Herbert J. and Welch, Wayne W., "A New Use of Randomization in Experimental Curriculum Evaluation," School Review, 75, 4 (February, 1967), 369-377.
- Walberg, Herbert J. and Welch, Wayne W., "Personality Characteristics of Innovative Physics Teachers," Journal of Creative Behavior, 1, 2 (Spring, 1967), 163-171.
- Welch, Wayne W., "Curricular Decisions - How Can Evaluation Assist Science Teachers?" The Science Teacher (November, 1968).
- Welch, Wayne W., "High School Physics Enrollments," Physics Today, 20, 9 (September, 1967), 9-13.
- Welch, Wayne W., "The Impact of National Curriculum Projects--The Need for Accurate Assessment," School Science and Mathematics, 68, 3 (March, 1967), 225-234.
- Welch, Wayne W., "The Need for Evaluating National Curriculum Projects," Phi Delta Kappan, XLIX, 9 (May, 1968), 530-532.

Welch, Wayne W. and Bridgham, Robert, "Physics Achievement as a Function of Teaching Duration," School Science and Mathematics, LXVII, 5 (May, 1968), 449-454.

Welch, Wayne W. and Rothman, Arthur I., "The Success of Recruited Students in a New Physics Course," Science Education, 52, 3 (April, 1968), 270-273.

Welch, Wayne W. and Walberg, Herbert J., "Are the Attitudes of Teachers Related to Declining Percentage Enrollments in Physics?" Science Education, 51, 5 (December, 1967), 436-442.

Welch, Wayne W. and Walberg, Herbert J., "A Design for Curriculum Evaluation," Science Education, 52, 1 (February, 1968), 10-16.

Welch, Wayne W. and Walberg, Herbert J., "An Evaluation of Summer Institute Programs for Physics Teachers," Journal of Research in Science Teaching, 5 (1967-1968), 105-109.

Winter, Stephen S. and Welch, Wayne W., "Achievement Testing Program of Harvard Project Physics," The Physics Teacher, 5, 5 (May, 1967), 229-231.

Articles in Press

Anderson, Gary J. and Walberg, Herbert J., "Classroom Climate and Group Learning," International Journal of the Educational Sciences, (October, 1969).

Rothman, Arthur I., "Effects of Teaching a New Physics Course on Teacher Attitudes," Science Education, (1968-69).

Rothman, Arthur I., Walberg, Herbert J. and Welch, Wayne W., "Effects of a Summer Institute on Attitudes of Physics Teachers," Science Education, (1968-69).

Rothman, Arthur I., Welch, Wayne W. and Walberg, Herbert J., "Physics Teacher Characteristics and Student Learning," Journal of Research in Science Teaching, 6, 1 (March, 1969).

Walberg, Herbert J., "Physical and Psychological Distance in the Classroom," School Review, (1969).

Walberg, Herbert J., "Physics, Femininity and Creativity," Developmental Psychology, 1, 1 (January, 1969).

Walberg, Herbert J. and Anderson, Gary J., "The Achievement Creativity Dimension and Classroom Climate," Journal of Creative Behavior, (June, 1969).

Walberg, Herbert J., "Class Size and the Social Environment of Learning," Human Relations, (1969).

Walberg, Herbert J. and Anderson, Gary J., "Classroom Climate and Individual Learning," Journal of Educational Psychology, (January, 1969).

Walberg, Herbert J. and Welch, Wayne W., "Dimensions of Personality in Selected Physics Teachers," Journal of Research in Science Teaching, Vol. 5 (1967-68). /Publication has been delayed./

Walberg, Herbert J., Welch, Wayne W. and Rothman, Arthur I., "Teacher Heterosexuality and Student Learning," Psychology in the Schools, (July, 1969).

Welch, Wayne W., "Correlates of Course Satisfaction in High School Physics," Journal of Research in Science Teaching, 6, 1 (March, 1969).

Welch, Wayne W., Walberg, Herbert J. and Ahlgren, Andrew, "The Selection of a National Random Sample of Teachers for Experimental Curriculum Evaluation," School Science and Mathematics, (Early 1969).

Mimeographs

- Anderson, Gary J., Walberg, Herbert J., and Welch, Wayne W., "Curriculum Effects on the Social Climate of Learning: A New Representation of Discriminant Functions." Harvard University, April, 1968.
- Bridgham, Robert F. and Welch, Wayne W., "Physics Enrollments and Grading Practices," Stanford University, February, 1968.
- Snider, Ray M., "Teacher-Student Verbal Interaction in Harvard Project Physics Classes." State University College, New Paltz, New York, Fall, 1968.
- Walberg, Herbert J., "A Portrait of the Artist and Scientist as Young Men." Harvard University, March, 1967.
- Walberg, Herbert J., "Predicting Class Learning: A Generalized Regression Approach to the Class as a Social System," Harvard University, August, 1968.
- Walberg, Herbert J. and Rothman, Arthur I., "Teacher Achievement and Student Learning," Harvard University, July, 1968.
- Welch, Wayne W., "The Role of Evaluation in the Development of Harvard Project Physics," Harvard University, March, 1968.
- Welch, Wayne W., "The High School Physics Student," Harvard University, September, 1968.

Theses and/or Qualifying Papers

Ahlgren, Andrew, "The Appropriateness of Confidence on Achievement Tests." (Unpublished qualifying paper*) Harvard University, 1967.

Ahlgren, Andrew, "Confidence on Achievement Tests and the Prediction of Retention." (Unpublished thesis) Harvard University, 1967.

Anderson, Gary J., "Effects of Classroom Social Climate on Individual Learning." (Unpublished thesis) Harvard University, 1969.

Anderson, Gary J., "The Reliability and Validity of a Measure of Classroom Climate." (Unpublished qualifying paper) Harvard University, 1967.

Bar Yam, Miriam, "The Interaction of Instructional Strategies with Student Characteristics." (Unpublished qualifying paper*) Harvard University, 1968.

Geis, Fred, Jr., "A Pilot Study on the Potential of the Semantic Differential Technique as a Means for Evaluating Changes in Affect Resulting from Course or Curricular Experiences." (Unpublished qualifying paper*) Harvard University, 1967.

Geis, Fred, Jr., "The Semantic Differential Technique as a Means of Evaluating Changes in 'Affect'" (Unpublished thesis) Harvard University, 1969.

Lapp, Douglas M., "Physics and the Disadvantaged Learner: Case Studies of Two Students in an Inner-City School." (Unpublished thesis) Harvard University, 1967.

Poorman, L. Eugene, "A Comparative Study of the Effectiveness of a Multi-Media Systems Approach to Harvard Project Physics with Traditional Approaches to Harvard Project Physics." (Unpublished thesis) Indiana University, 1967.

* Those qualifying papers marked with an * were passed with distinction at the Harvard Graduate School of Education.